

**IN THE CLAIMS:**

This listing of claims will replace all prior versions, and listings, of claims in the application. Where claims have been amended and/or cancelled, such amendments and/or cancellations are done without prejudice and/or waiver and/or disclaimer to the claimed and/or disclosed subject matter, and the applicant and/or assignee reserves the right to claim this subject matter and/or other disclosed subject matter in a continuing application.

1-2. Cancelled

3. (Currently Amended) The A method, comprising: of claim 2,  
scanning an object using a stagger sensor;  
retrieving reference digital data; and  
calculating a computed pixel value using at least in part the retrieved reference  
digital data and data captured by the scanning operation,  
wherein scanning an object using a stagger sensor comprises scanning the  
object using a stagger sensor including a plurality of scanning modules, the plurality of  
scanning modules including a plurality of light-sensing cells, and  
wherein calculating a computed pixel value further includes: if a first light-sensing cell of a first sensing module includes a reference digital data and a second light-sensing cell of a second sensing module and the first light-sensing cell having some overlap in a forward scanning direction, digital data of a pixel in the region in the second light-sensing cell having substantially no overlap with the first light-sensing cell is obtained substantially in accordance with the following relationship:

$A(X)=F(X)*N-A(X-1)-A(X-2)-\dots-A(0)*(N-X)$  where X comprises a desired pixel, N comprises a number of pixels included in a light-sensing cell, A(X) comprises digital data corresponding to an X<sup>th</sup> pixel, A(1) comprises digital data of the first pixel, and F(X) comprises digital data captured during the scanning operation including pixels captured by the light-sensing cell.

4. (Previously Presented) The method of claim 3, wherein digital data in the overlapping region between the second light-sensing cell and the first light-sensing cell includes substantially identical digital data.

5-7. Cancelled

8. (Previously Presented) A method of improving modulation transfer function through scanning a scan object with a stagger sensor, wherein the stagger sensor includes a plurality of sensing modules, a first light-sensing cell of a first sensing module and a second light-sensing cell of a second sensing module having a first end on in substantially the same position along the long axis wherein the first light-sensing cell has a second end in a different position along the axis than a second end of the second light-sensing cell, the method comprising:

obtaining digital data of a first pixel using a difference in scanning region between the first light-sensing cell and the second light-sensing cell; and

processing digital data of a plurality of subsequent pixels after a scanning of the scan object according to the digital data of the first pixel.

9. (Previously Presented) The method of claim 8, wherein the first and second light-sensing cells are capable of scanning a plurality of pixels.

10. (Currently Amended) The method of claim 9, wherein processing digital data of subsequent pixels further includes: if the second light-sensing cell and the first light-sensing cell have an overlapping region in a forward scanning direction, digital data of the pixel scanned by the second light-sensing cell having substantially no overlapping with the first light-sensing cell are obtained substantially in accordance with the following relationship:  $A(X) = F(X) * N - A(X-1) - A(X-2) - \dots - A(X-N+1)$ , where X comprises a desired pixel, N comprises a number of pixels included in a light-sensing cell, A(X) comprises digital data corresponding to an X<sup>th</sup> pixel, A(1) comprises digital data of the first pixel, and F(X) is digital data obtained by scanning using light-sensing cells.

11. (Previously Presented) The method of claim 10, wherein digital data in the overlapping region between the second light-sensing cell and the first light-sensing cell includes substantially identical digital data.

12-15. Cancelled

16. (Currently Amended) ~~The A method, comprising: of claim 2;~~  
scanning an object using a stagger sensor;  
retrieving reference digital data; and  
calculating a computed pixel value using at least in part the retrieved reference digital data and data captured by the scanning operation.

wherein scanning an object using a stagger sensor comprises scanning the object using a stagger sensor including a plurality of scanning modules, the plurality of scanning modules including a plurality of light-sensing cells, and

wherein calculating a computed pixel value further includes: if a first light-sensing cell of a first sensing module includes no reference digital data and a second light-sensing cell of a second sensing module and the first light-sensing cell has some overlapping in a forward scanning direction, the digital data of the pixel scanned by the second light-sensing cell including substantially no overlap with the first light-sensing cell is obtained substantially in accordance with the following relationship:

$A(X) = F(X) * N - A(X-1) - A(X-2) - \dots - A(X-N+1)$ , where X comprises a desired pixel, N comprises a number of pixels included in a light-sensing cell, A(X) comprises digital data corresponding to an X<sup>th</sup> pixel, A(1) comprises digital data of the first pixel, and F(X) comprises digital data captured during the scanning operation including pixels captured by the light-sensing cell.

17-25. Cancelled

26. (Previously Presented) An apparatus, comprising:  
a scanner adapted to perform the method of claim 8 during operation.

27-29. Cancelled